**[](http://www.calculate.org.au/)[](http://www.amsi.org.au)MATHEMATICS SCOPE AND SEQUENCE AUDIT: Year 6**

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| **NUMBER AND ALGEBRA** | | **TIMES** | **SAM** | **Term 1** | **Term 2** | **Term 3** | **Term 4** |
| Number & Place Value | [Identify and describe properties of prime, composite, square and triangular numbers (ACMNA122)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=NA&layout=1) | [***TIMESNA19***](http://amsi.org.au/teacher_modules/Multiples_factors_and_powers.html) |  |  |  |  |  |
|  | [Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving all four operations with whole numbers (ACMNA123)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=NA&layout=1) | [***TIMESNA19***](http://amsi.org.au/teacher_modules/Multiples_factors_and_powers.html) | [***(SAMMYNA01)***](http://www.amsi.org.au/ESA_middle_years/Year6/Year6_md/Year6_1a.html#intro) |  |  |  |  |
|  | [Investigate everyday situations that use integers. Locate and represent these numbers on a number line (ACMNA124)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=NA&layout=1) | [***TIMESNA15***](http://amsi.org.au/teacher_modules/Integer.html) |  |  |  |  |  |
| Fractions & Decimals | [Compare fractions with related denominators and locate and represent them on a number line (ACMNA125)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=NA&layout=1) | [***TIMESNA14***](http://amsi.org.au/teacher_modules/fractions.html) | [***(SAMMYNA02)***](http://www.amsi.org.au/ESA_middle_years/Year6/Year6_md/Year6_1b.html#intro) |  |  |  |  |
|  | [Solve problems involving addition and subtraction of fractions with the same or related denominators (ACMNA126)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=NA&layout=1) | [***TIMESNA14***](http://amsi.org.au/teacher_modules/fractions.html) |  |  |  |  |  |
|  | [Find a simple fraction of a quantity where the result is a whole number, with and without digital technologies (ACMNA127)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=NA&layout=1) | [***TIMESNA14***](http://amsi.org.au/teacher_modules/fractions.html) | [***TIMESNA17***](http://www.amsi.org.au/teacher_modules/Unitary_Method.html) |  |  |  |  |
|  | [Add and subtract decimals, with and without digital technologies, and use estimation and rounding to check the reasonableness of answers(ACMNA128)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=NA&layout=1) | [***TIMESNA18***](http://www.amsi.org.au/teacher_modules/decimals_and_percentages.html) | [***(SAMMYNA03)***](http://www.amsi.org.au/ESA_middle_years/Year6/Year6_md/Year6_1c.html#intro) |  |  |  |  |
|  | [Multiply decimals by whole numbers and perform divisions by non-zero whole numbers where the results are terminating decimals, with and without digital technologies (ACMNA129)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=NA&layout=1) | [***TIMESNA18***](http://www.amsi.org.au/teacher_modules/decimals_and_percentages.html) |  |  |  |  |  |
|  | [Multiply and divide decimals by powers of 10 (ACMNA130)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=NA&layout=1) | [***TIMESNA18***](http://www.amsi.org.au/teacher_modules/decimals_and_percentages.html) |  |  |  |  |  |
|  | [Make connections between equivalent fractions, decimals and percentages (ACMNA131)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=NA&layout=1) | [***TIMESNA18***](http://www.amsi.org.au/teacher_modules/decimals_and_percentages.html) | [***TIMESNA20***](http://www.amsi.org.au/teacher_modules/Percentages.html) |  |  |  |  |
| Money & Financial Maths | [Investigate and calculate percentage discounts of 10%, 25% and 50% on sale items, with and without digital technologies (ACMNA132)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=NA&layout=1) |  | [***(SAMMYNA05)***](http://www.amsi.org.au/ESA_middle_years/Year6/Year6_md/Year6_1e.html#intro) |  |  |  |  |
| Patterns & Algebra | [Continue and create sequences involving whole numbers, fractions and decimals. Describe the rule used to create the sequence (ACMNA133)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=NA&layout=1) |  |  |  |  |  |  |
|  | [Explore the use of brackets and order of operations to write number sentences (ACMNA134)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=NA&layout=1) | [***TIMESNA13***](http://www.amsi.org.au/teacher_modules/whole_number_arithmetic.html) |  |  |  |  |  |
| **MEASUREMENT AND GEOMETRY** | |  |  |  |  |  |  |
|  | [Connect decimal representations to the metric system (ACMMG135)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=MG&layout=1) |  |  |  |  |  |  |
|  | [Convert between common metric units of length, mass and capacity (ACMMG136)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=MG&layout=1) | [***TIMESMG10***](http://www.amsi.org.au/teacher_modules/introduction_to_measurement.html) |  |  |  |  |  |
|  | [Solve problems involving the comparison of lengths and areas using appropriate units(ACMMG137)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=MG&layout=1) |  |  |  |  |  |  |
|  | [Connect volume and capacity and their units of measurement (ACMMG138)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=MG&layout=1) |  | [***(SAMMYMG05)***](http://www.amsi.org.au/ESA_middle_years/Year6/Year6_md/Year6_2b.html#intro) |  |  |  |  |
|  | [Interpret and use timetables (ACMMG139)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=MG&layout=1) |  |  |  |  |  |  |
|  | [Construct simple prisms and pyramids (ACMMG140)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=MG&layout=1) |  | [***(SAMMYMG06)***](http://www.amsi.org.au/ESA_middle_years/Year6/Year6_md/Year6_2b.html#intro) |  |  |  |  |
|  | [Investigate combinations of translations, reflections and rotations, with and without the use of digital technologies (ACMMG142)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=MG&layout=1) |  |  |  |  |  |  |
|  | [Introduce the Cartesian coordinate system using all four quadrants (ACMMG143)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=MG&layout=1) |  | [***(SAMMYMG04)***](http://www.amsi.org.au/ESA_middle_years/Year6/Year6_md/Year6_2a.html#intro) |  |  |  |  |
|  | [Investigate, with and without digital technologies, angles on a straight line, angles at a point and vertically opposite angles. Use results to find unknown angles (ACMMG141)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=MG&layout=1) | [***TIMESMG09***](http://www.amsi.org.au/teacher_modules/introduction_to_plane_geometry.html) |  |  |  |  |  |
| **STATISTICS AND PROBABILITY** | |  |  |  |  |  |  |
|  | [Describe probabilities using fractions, decimals and percentages (ACMSP144)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=SP&layout=1) | [***TIMESSP11***](http://www.amsi.org.au/teacher_modules/Chance_year_6.html) |  |  |  |  |  |
|  | [Conduct chance experiments with both small and large numbers of trials using appropriate digital technologies (ACMSP145)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=SP&layout=1) | [***TIMESSP11***](http://www.amsi.org.au/teacher_modules/Chance_year_6.html) |  |  |  |  |  |
|  | [Compare observed frequencies across experiments with expected frequencies(ACMSP146)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=SP&layout=1) | [***TIMESSP11***](http://www.amsi.org.au/teacher_modules/Chance_year_6.html) |  |  |  |  |  |
|  | [Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables (ACMSP147)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=SP&layout=1) | [***TIMESSP04***](http://www.amsi.org.au/teacher_modules/Data_Investigation_and_interpretation6.html) |  |  |  |  |  |
|  | [Interpret secondary data presented in digital media and elsewhere (ACMSP148)](http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?y=6&s=SP&layout=1) | [***TIMESSP04***](http://www.amsi.org.au/teacher_modules/Data_Investigation_and_interpretation6.html) |  |  |  |  |  |
| **PROFICIENCIES (Embedded Throughout)** | | **Keywords** | | | | | |
| [**Understanding**](file:///D:\Users\mconnor\Documents\Resources\AMSI%20School%20Program%20Implementation\AMSI%20Teacher%20Journal%20Master\2015%20Audit%20Docs\Proficiency%20Summaries\Understanding%20Statements%20and%20Keywords.docx) | includes describing properties of different sets of numbers, using fractions and decimals to describe probabilities, representing fractions and decimals in various ways and describing connections between them, and making reasonable estimations | Making connections, noticing properties, manipulating according to properties, identifying and describing relationships, estimating | | | | | |
| [**Fluency**](file:///D:\Users\mconnor\Documents\Resources\AMSI%20School%20Program%20Implementation\AMSI%20Teacher%20Journal%20Master\2015%20Audit%20Docs\Proficiency%20Summaries\Fluency%20Statements%20and%20Keywords.docx) | includes representing   integers on a number line, calculating simple percentages, using brackets appropriately, converting between fractions and decimals, using operations with fractions, decimals and percentages, measuring using metric units, and interpreting timetables | Representing, calculating, appropriate usage of symbols and nomenclature, measuring, interpreting | | | | | |
| [**Problem Solving**](file:///D:\Users\mconnor\Documents\Resources\AMSI%20School%20Program%20Implementation\AMSI%20Teacher%20Journal%20Master\2015%20Audit%20Docs\Proficiency%20Summaries\Problem%20Solving%20Statements%20and%20Keywords.docx) | includes formulating and solving authentic problems using fractions, decimals, percentages and measurements,  interpreting secondary data displays, and  finding the size of unknown angles | Formulate, solve, interpret, | | | | | |
| [**Reasoning**](file:///D:\Users\mconnor\Documents\Resources\AMSI%20School%20Program%20Implementation\AMSI%20Teacher%20Journal%20Master\2015%20Audit%20Docs\Proficiency%20Summaries\Reasoning%20Statements%20and%20Keywords.docx) | includes explaining mental strategies for performing calculations, describing results for continuing number sequences, explaining the transformation of one shape into another, explaining why the actual results of chance experiments may differ from expected results | Explaining, describing, | | | | | |